Fisher® GX Bulletin Supplement

Use this bulletin supplement in conjunction with bulletin 51.1:GX, Fisher GX Control Valve and Actuator System, D103171X012. This supplement provides additional information for the Fisher GX control valve and actuator.

The standard GX actuator comes with a supply pressure range of 4 to 6 bar (58 to 87 psi) for both air-to-open (ATO) and air-to-close (ATC) configurations. By selecting the appropriate option, the GX actuator will operate with a minimum supply pressure of 3 bar (44 psi) and 2 bar (29 psi) at the expense of maximum allowable shutoff pressure. Note: These options do not apply to the size 1200 actuator which operates on a standard pressure range of 3 to 6 bar.

The primary focus of this bulletin is to provide maximum pressure drop tables for the corresponding GX constructions.

Each of these tables includes air-to-open (standard) and air-to-close (optional) actuator configurations for varying supply pressure ranges, as well as the maximum actuator air supply pressure and associated pressure drop.

Tables are also provided for shutoff classification capability. These tables immediately follow their respective constructions. See table 1 for an index of these tables.

Table 1. Index to Trim Tables

| Stem Material | Bonnet Style | Max Pressure Drop and Max Supply Pressure | Shutoff Capabilities |
|---------------|------------------------|--|-------------------------|
| | Standard | Table 2 | Table 3 |
| High Strength | Extension / Bellows | Table 4 | Table 5 |
| Low Strongth | Standard | Table 6 | Table 7 |
| Low Strength | Bellows | Table 8 | Table 9 |

High Strength Stem Material: S31603, S20910, N05500

Low Strength Stem Material: N06022, S31803, N10665



Fisher GX Control Valve, Actuator, and FIELDVUE™ DVC2000 Digital Valve Controller





Table 2 contains information regarding the maximum pressure drop capability of the GX with a standard bonnet and S31603 trim. Maximum pressure drop is

calculated at the maximum supply pressure for each construction. The allowable leakage classes are given in table 3.

Table 2. Maximum Pressure Drops with Standard Bonnet Construction and High Strength Stem

| | | | | рторз w | Air to Open | | | | | Air to Close | _ | | | |
|---------------------|-------------------|--------|----------------|-------------|----------------|-------------------|---------------------|-------------------|----------------------|-------------------|-------------------|-------------------|---------------|--------------|
| | Port | Max | Actua- tor | | ope | | | Su | ipply pressu | re | | | Max Press | ure Limits |
| Valve Size | Size | Travel | con- struc- | Packing | Max ∆P | 2 Bar (29 psi) | 2.5 Bar (36 psi) | 3 Bar (44 psi) | 3.44 Bar (50 psi) | 4 Bar (58 psi) | 5 Bar (72 psi) | 6 Bar (87 psi) | ΔΡ | Supply |
| | mm | mm | tion | | bar (psi) | bar (psi) | bar (psi) | bar (psi) | bar (psi) | bar (psi) | bar (psi) | bar (psi) | bar (psi) | bar (psi) |
| | | | 225 2Bar | ULF PTFE | | 51 | | F-1 | | | | | | |
| | | | 225 | ULF | 51.7 | (7. | | 51 (75 | | | 51.7 | | 51.7 | 6 |
| | 4.8 | 20 | 3Bar | PTFE | (750) | N | /A | | | | (750) | | (750) | (87) |
| DN15 to 25 | | | 225 4Bar | ULF PTFE | | | ,,, | N, | /A | | | | | |
| (NPS 1/2 | | | 225 | ULF | | 51 | 1.7 | | | | | | | |
| to 1) | | | 2Bar | PTFE | | | 50) | | .7 | | | | | |
| | 9.5 | 20 | 225 | ULF | 51.7 | | | (75 | 50) | | 51.7 | | 51.7 | 6 |
| | | | 3Bar | PTFE ULF | (750) | N | /A | | | | (750) | | (750) | (87) |
| | | | 225 4Bar | PTFE | | | | N, | /A | | | | | |
| 51126 | | | 225 2Bar | ULF PTFE | | | 1.7 50) | 51 | 1.7 | | | | | |
| DN20 to 40 | 1.4 | 20 | 225 | ULF | 51.7 | (1. | , | (75 | | | 51.7 | | 51.7 | 6 |
| (NPS 3/4 | 14 | 20 | ЗВаг | PTFE | (750) | N | /A | | | | (750) | | (750) | (87) |
| to 1-1/2) | | | 225 4Bar | ULF PTFE | | | , . | N, | /A | | | | | |
| | | | 225 | ULF | 27.3 (396) | 39.2 (569) | 51.7 | | | | | | | |
| | | | 2Bar | PTFE | 42.0 (609) | 51.7 (750) | (750) | 51 | . 7 | | | | | |
| DN25 to 50 | 22 ⁽¹⁾ | 20 | 225 | ULF | 43.4 (629) | (1) | ı | (75 | | | 51.7 | | 51.7 | 6 |
| (NPS 1 to 2) | | | 225 3Bar | PTFE | 51.7 (750) | N | /A | | | | (750) | | (750) | (87) |
| | | | 225 | ULF | 51.7 | | | | | | | | | |
| | | | 4Bar | PTFE | (750) | | 1 | N _i | | | 1 | | | |
| | | | 225 | ULF | 10.2 (148) | 14.6 (212) | 25.3 (367) | 35.9 (521) | 45.3 (657) | 51.7 | | | | |
| | | | 2Bar | PTFE | 15.7 (750) | 20.1 (292) | 30.8 (447) | 41.4 (600) | 50.8 (737) | (750) | | | | |
| | | | 225 | ULF | 16.2 (235) | | | 25.9 (376) | 35.3 (512) | 47.2 (685) | 51 | 1.7 | 51.7 | 6 |
| | | | 3Bar | PTFE | 21.7 (315) | | | 31.4 (455) | 40.8 (592) | 51.7 (750) | | 50) | (750) | (87) |
| DN40 to 50 | | | 225 | ULF | 28.3 (410) | N | /A | | | 47.2 (685) | | | | |
| (NPS 1-1/2 to 2) | 36 ⁽¹⁾ | 20 | 4Bar | PTFE | 33.7 (489) | | | N, | /A | 51.7 (750) | = | | | |
| 10 2) | | | 750 | ULF | 48.0 (696) | 33.7 (489) | 51.7 | | | . , | l | | | |
| | | | 2Bar | PTFE | 51.7 (750) | 39.2 (569) | (750) | 51 (7 <u>!</u> | 1.7 50) | | | | 51.7 (750) | 3.5 (51) |
| | | | 750 | ULF | / | / | 1 | (7: | 50) | | | | (750) | (31) |
| | | | 3Bar | PTFE | 51.7 | N | /A | | | | | | | |
| | | | 750 4Bar | ULF PTFE | (750) | | | N, | /A | | | | N, | /A |

Table 2. Maximum Pressure Drops with Standard Bonnet Construction and High Strength Stem (continued)

| | | | | Drops w | Air to Open | | | | | Air to Close | | • | · · | |
|-----------------|-------------------|---------------|----------------|-------------|----------------|-------------------|---------------------|-------------------|----------------------|-------------------|-------------------|-------------------|---------------|--------------|
| Valve | Port Size | Max Travel | Actua- tor | | | | | | ipply pressu | | | | Max Press | ure Limits |
| Size | Size | Huvei | con- struc- | Packing | Max ∆P | 2 Bar (29 psi) | 2.5 Bar (36 psi) | 3 Bar (44 psi) | 3.44 Bar (50 psi) | 4 Bar (58 psi) | 5 Bar (72 psi) | 6 Bar (87 psi) | ΔΡ | Supply |
| | mm | mm | tion | | bar (psi) | bar (psi) | bar (psi) | bar (psi) | bar (psi) | bar (psi) | bar (psi) | bar (psi) | bar (psi) | bar (psi) |
| | | | 225 | ULF | | 9.0 (131) | 15.5 (225) | 22.0 (319) | 27.8 (403) | 35.1 (509) | 48.1 (698) | | | |
| | | | 2Bar | PTFE | | 12.3 (178) | 18.8 (273) | 25.4 (368) | 31.1 (451) | 38.4 (557) | 51.5 (747) | | | |
| | (1) | | 225 | ULF | 9.9 (144) | | | 15.9 (231) | 21.6 (313) | 28.9 (419) | 42.0 (609) | 51.7 | 51.7 | 6 |
| | 46 ⁽¹⁾ | 20 | 3Bar | PTFE | 13.3 (193) | | | 19.2 (278) | 25.0 (363) | 32.3 (468) | 45.3 (657) | (750) | (750) | (87) |
| | | | 225 | ULF | 17.3 (251) | N | /A | | l | 28.9 (419) | 42.0 (609) | = | | |
| DN50 | | | 4Bar | PTFE | 20.7 (300) | | | N ₁ | /A | 32.3 (468) | 45.3 (657) | | | |
| (NPS 2) | | | 750 | ULF | 29.4 (426) | 20.7 (300) | 42.4 (615) | | | , , | , , | <u> </u> | | |
| | | | 2Bar | PTFE | 32.8 (476) | 24.0 (348) | 45.8 (664) | 51 | 1.7 | | | | 51.7 | 3.5 |
| | | | 750 | ULF | 46.5 (674) | . , | 1 | | 50) | | | | (750) | (51) |
| | 46 | 20 | 3Bar | PTFE | 49.9 (724) | | | | | | | | | |
| | | | 750 | ULF | 46.5 (674) | N | /A | | | | | | | |
| | | | 4Bar | PTFE | 49.9 (724) | | | N | /A | | | | N, | /A |
| | | | 750 | ULF | 46.4 (673) | 32.1 (466) | 51.7 | | | | | | | |
| DNIGO | | | 2Bar | PTFE | 51.1 (741) | 36.8 (534) | (750) | | .7 50) | | F1 7 | | 51.7 | |
| DN80 (NPS 3) | 36 | 20 | 750 | ULF | ` , | , , | | ,,, | 50) | | 51.7 (750) | | 51.7 (750) | 6 (87) |
| | | | 3Bar | PTFE | 51.7 | N | /A | | | | | | | |
| | | | 750 4Bar | ULF PTFE | (750) | | , | N | /A | | | | | |
| | | | 750 | ULF | 28.4 (412) | 19.7 (286) | 41.5 (602) | | | | | | | |
| | | | 2Bar | PTFE | 31.3 (454) | 22.6 (328) | 44.3 (643) | 51 | 1.7 | | | | | |
| DN80 -100 | 46 | 20 | 750 | ULF | 45.5 (660) | | | (7! | 50) | | 51.7 | | 51.7 | 6 |
| (NPS 3 to 4) | 46 | 20 | 3Bar | PTFE | 48.4 (702) |] | | | | | (750) | | (750) | (87) |
| | | | 750 | ULF | 45.5 (660) | · N | /A | N/A | | | | | | |
| | | | 4Bar | PTFE | 48.4 (702) | | | N | /A | | | | | |
| | | | 750 2Bar | ULF PTFE | | | 1.7 50) | 51 | 1.7 | | | | | |
| DN80 (NPS 3) | 70 Bal | 20 | 750 3Bar | ULF PTFE | 51.7 (750) | | - | | 50) | | 51.7 (750) | | 51.7 (750) | 6 (87) |
| (111 2 2) | | 750 | ULF | (750) | N | /A | N | /A | | (, 50) | | (,50) | (07) | |
| | | | 4Bar | PTFE | | | | | | | | | | |

Table 2. Maximum Pressure Drops with Standard Bonnet Construction and High Strength Stem (continued)

| | | | | | Air to Open | | | | | Air to Close | | | | |
|-----------------------------|--------------------------|---------------|----------------|---------------|-----------------------|-------------------|---------------------|-------------------|----------------------|-----------------------|-------------------|-------------------|---------------|--------------|
| Valve | Port Size | Max Travel | Actua- tor | | | | | Sı | ipply pressu | ire | | | Max Press | sure Limits |
| Size | Size | Havei | con- struc- | Packing | Max ∆P | 2 Bar (29 psi) | 2.5 Bar (36 psi) | 3 Bar (44 psi) | 3.44 Bar (50 psi) | 4 Bar (58 psi) | 5 Bar (72 psi) | 6 Bar (87 psi) | ΔΡ | Supply |
| | mm | mm | tion | | bar (psi) | bar (psi) | bar (psi) | bar (psi) | bar (psi) | bar (psi) | bar (psi) | bar (psi) | bar (psi) | bar (psi) |
| | | | 750 | ULF | 11.5 (167) | 17.2 (249) | 26.6 (386) | 35.9 (521) | 44.2 (641) | | | | | |
| | | | 2Bar | PTFE | 12.8 (186) | 18.4 (267) | 27.8 (403) | 37.2 (540) | 45.4 (658) | 51.7 | | | | |
| | 70 | 40 | 750 | ULF | 23.0 (334) | | | 35.9 (521) | 44.2 (641) | (750) | | .7 | 51.7 | 6 |
| | , , | | 3Bar | PTFE | 24.2 (351) | N/A | N/A | 37.2 (540) | 45.4 (658) | | (7! | 50) | (750) | (87) |
| | | | 750 | ULF | 31.9 (463) | , | , | N/A | N/A | 36.9 (535) | | | | |
| | | | 4Bar | PTFE | 33.1 (480) | | | , | , | 38.2 (554) | | | | |
| | | | 750 | ULF | | 46.8 (679) | 51.7 | | | | | | | |
| DN80 -100 | 90 | 20 | 2Bar | PTFE | 51.7 | 51.7 (750) | (750) | | 1.7 50) | | 51.7 | | 51.7 | 6 |
| (NPS 3 to 4) | Bal | 20 | 750 3Bar | ULF PTFE | (750) | N/A | | | | | (750) | | (750) | (87) |
| | | | 750 4Bar | ULF PTFE | | | | N | /A | | | | | |
| | | | 750 | ULF | 7.0 (102) | 10.4 (151) | 16.1 (234) | 21.7 (315) | 26.7 (387) | 33.1 (480) | 44.4 (644) | | | |
| | | | 2Bar | PTFE | 7.7 (112) | 11.2 (162) | 16.8 (244) | 22.5 (326) | 27.5 (399) | 33.8 (490) | 45.2 (656) | 51.7 | 51.7 | |
| | 90 | 40 | 750 | ULF | 13.9 (202) | | | 21.7 (315) | 26.7 (387) | 33.1 (480) | 44.4 (644) | (750) | (750) | 6 |
| | | | 3Bar | PTFE | 14.7 (213) | N | /A | 22.5 (326) | 27.5 (399) | 33.8 (490) | 45.2 (656) | | | (87) |
| | | | 750 | ULF | 19.3 (280) | · | | N | /A | 22.3 (323) | 33.7 (489) | 45.0 (653) | 45.0 (653) | |
| | | | 4Bar | PTFE | 20.0 (290) 26.4 | | | 18.9 | 26.9 | 23.1 (335) 37.2 | 34.4 (499) | 45.7 (663) | 45.7 (663) | |
| | 90 | 40 | 1200 | ULF | (383) | | | (274) 20.3 | (390) | 37.2 (540) 38.7 | | | | 4.9 (71) |
| DNII | 13.6 | | | PTFE ULF | (403) | | | (294) | (412) | (561) | 7 | | 51.7 (750) | (71) |
| (NPS 6) | DN150 136 (NPS 6) Bal | 60 | 1200 | PTFE | 51.7 (750) | N, | /A | | 50) | 51 (7! | 50) | | 22.5 | E 4 |
| 136 | 60 | 1200 | ULF | 8.4 (122) | | | 4.6 (67) | 8.1 (117) | 12.5 (181) | 20.3 (294) | | 23.5 (341) | 5.4 (78) | |
| | | | | PTFE | 9.1 (132) | | | 5.2 (75) | 8.7 (126) | 13.1 (190) | 20.9 (303) | | 24.1 (350) | |
| Cavitro | ol™ III trim | limited to 27 | .6 bar (400 j | psid) maximur | n pressure dr | op and 4 bar (| 58 psi) minin | num supply p | ressure. | | | | | |

Table 3. Shutoff Classification Capability for Standard Bonnet Construction and High Strength Stem⁽¹⁾

| | | | | | ty for Stan | | | | Air to Close | | | |
|-----------------------|------|--------|----------------|-------------|-------------------------|----------------------------------|---|-------------------------|-------------------------|-------------------------|-------------------------|-------------------|
| | Port | Max | Actua- tor | | | | | 9 | Supply pressur | e | | |
| Valve Size | Size | Travel | con- struc- | Packing | Shutoff | 2 Bar (29 psi) | 2.5 Bar (36 psi) | 3 Bar (44 psi) | 3.44 Bar (50 psi) | 4 Bar (58 psi) | 5 Bar (72 psi) | 6 Bar (87 psi) |
| | mm | mm | tion | | | Shutoff | Shutoff | Shutoff | Shutoff | Shutoff | Shutoff | Shutoff |
| | | | 225 | ULF | IV,V,VI ⁽²⁾ | IV V | V,VI | | | | | |
| | | | 2Bar | PTFE | | 14, | v, v i | IV \ | /,VI | | | |
| | 4.8 | 20 | 225 | ULF | | | | , | ., | | IV,V,VI | |
| | | 20 | 3Bar | PTFE | IV,V,VI | l N | /A | | | | ,.,. | |
| DN15 | | | 225 | ULF | | | , | N. | /A | | | |
| to 25 | | | 4Bar | PTFE | (2) | | | | 1 | | | |
| (NPS 1/2 to 1) | | | 225 | ULF | IV,V ⁽²⁾ | IV,V,VI ⁽²⁾ | IV,V,VI ⁽²⁾ | IV,V,VI | | | | |
| 1) | | | 2Bar | PTFE | (2) | | IV,V,VI | | IV,V,VI | | | |
| | 9.5 | 20 | 225 | ULF | IV,V,VI ⁽²⁾ | | | IV,V,VI ⁽²⁾ | | | IV,V,VI | |
| | | | 3Bar | PTFE | | N | /A | IV,V,VI | | | | |
| | | | 225 | ULF | IV,V,VI | | | N | /A | | | |
| | | | 4Bar | PTFE | D. | | 1 | n () () (()) | ı | | | |
| | | | 225 | ULF | IV | IV,V ⁽²⁾ | IV,V,VI ⁽²⁾ | IV,V,VI ⁽²⁾ | IV,V,VI | | | |
| DN20 | | | 2Bar | PTFE | IV,V ⁽²⁾ | | | IV,V,VI | | | | |
| to 40 | 14 | 20 | 225 | ULF | | | | IV,V, | VI ⁽²⁾ | | IV,V,VI | |
| (NPS 3/4 to 1-1/2) | | | 3Bar | PTFE | (2) | N | /A | | | | | |
| /-/ | | | 225 | ULF | IV,V,VI ⁽²⁾ | | | N, | /A | | | |
| | | | 4Bar | PTFE | | D () (1 | 1 | | 1 | Л | | |
| | | | 225 | ULF | | IV,VI IV,V ⁽²⁾ ,VI | IV,V ⁽²⁾ ,VI | IV,V,VI | | | | |
| DN25 | | | 2Bar | PTFE | IV,VI | 10,0(2),01 | | | IV,V,VI | | | |
| to 50 | 22 | 20 | 225 | ULF | | | | IV,V ⁽²⁾ ,VI | | | IV,V,VI | |
| (NPS 1 to 2 | | | 3Bar | PTFE ULF | IV,V ⁽²⁾ ,VI | N | /A | | | | | |
| | | | 225 4Bar | PTFE | IV,V,VI | | | N, | /A | | | |
| | | | | ULF | 10,0,01 | IV ⁽²⁾ ,VI | IV,VI | | <u> </u> | | | |
| | | | 225 2Bar | PTFE | IV ⁽²⁾ ,VI | IV,VI | IV,V ⁽²⁾ ,VI | IV,V ⁽²⁾ ,VI | | IV,V,VI | | |
| | | | - | ULF | 10(-7,01 | 10,01 | 10,017,01 | IV,VI | IV,V ⁽²⁾ ,VI | | | |
| | | | 225 3Bar | PTFE | | | | IV,V ⁽²⁾ ,VI | | | IV, | V,VI |
| | | | | ULF | IV,VI | N | /A | 10,017,01 | | IV,V ⁽²⁾ ,VI | | |
| DN40 to 50 | | | 225 4Bar | PTFE | IV,V ⁽²⁾ ,VI | | | N, | /A | | | |
| (NPS 1-1/2 to | 36 | 20 | 750 | ULF | | | | | | | | |
| 2) | | | 2Bar | PTFE | IV,V ⁽²⁾ ,VI | IV,V ⁽²⁾ ,VI | IV,V,VI | | | | | |
| | | | 750 | ULF | | | | IV,\ | /,VI | | | |
| | | | 750 3Ваг | PTFE | 1 | | | | | | | |
| | | | 750 | ULF | IV,V,VI | N | /A | | | | | |
| | | | 4Bar | PTFE | | | | N, | /A | | | |
| | | | 225 | ULF | | | | IV,VI | | | | |
| | | | 2Bar | PTFE | | IV ⁽²⁾ ,VI | IV,VI | IV,V ⁽²⁾ ,VI | IV,V ⁽²⁾ ,VI | | IV,V,VI | |
| | | | 225 | ULF | (2) | | | | IV,VI | (2) | IV,V ⁽²⁾ ,VI | |
| | | | 3Bar | PTFE | IV ⁽²⁾ ,VI | | | IV,VI | IV,V ⁽²⁾ ,VI | | IV,V,VI | |
| | | | 225 | ULF | | N, | /A | | | | IV,V ⁽²⁾ ,VI | |
| DN50 | 4.5 | 20 | 4Bar | PTFE | IV,VI | | | N, | /A | | IV,V,VI | 1 |
| (NPS 2) | 46 | 20 | 750 | ULF | n () (2) . " | IV,VI | IV,VI IV,V ⁽²⁾ ,V ⁽²⁾ I | | 1 | 1 | | |
| | | | 2Bar | PTFE | IV,V ⁽²⁾ ,VI | IV,V ⁽²⁾ ,VI | IV,V,VI | | | | | |
| | | | 750 | ULF | | | 1 | IV,\ | /,VI | | | |
| | | | 3Bar | PTFE | n./.\ | | 1.0 | | | | | |
| | | | 750 | ULF | IV,V,VI | N ₁ | /A | | 1.4 | 1 | | |
| | | | 4Bar | PTFE | 1 | | | N, | /A | | | |

Table 3. Shutoff Classification Capability for Standard Bonnet Construction and High Strength Stem⁽¹⁾ (continued)

| | | | Actua- | | Air to Open | | | | Air to Close | | | |
|------------------|------------|--------|----------------|-------------|---------------------------|-------------------------|-------------------------|-------------------------|----------------------|-------------------------|-------------------|-------------------|
| Value | Port | Max | tor | | | | | S | upply pressur | е | | |
| Valve Size | Size | Travel | con- struc- | Packing | Shutoff | 2 Bar (29 psi) | 2.5 Bar (36 psi) | 3 Bar (44 psi) | 3.44 Bar (50 psi) | 4 Bar (58 psi) | 5 Bar (72 psi) | 6 Bar (87 psi) |
| | mm | mm | tion | | | Shutoff | Shutoff | Shutoff | Shutoff | Shutoff | Shutoff | Shutoff |
| | | | 750 | ULF | IV,V ⁽²⁾ ,VI | IV,V ⁽²⁾ ,VI | IV,V,VI | | | | | |
| | | | 2Bar | PTFE | 10,01-7,01 | 10,01-7,01 | 10,0,01 | IV,\ | / \/I | | | |
| DN80 | 36 | 20 | 750 | ULF | | | | 10,0 | ,,vı | | IV,V,VI | |
| (NPS 3) | 30 | 20 | 3Bar | PTFE | IV,V,VI | N | I/A | | | | 10,0,01 | |
| | | | 750 | ULF | ,., | ••• | .,,, | N, | /A | | | |
| | | | 4Bar | PTFE | | | (2) | , | | | | |
| | | | 750 | ULF | IV,V ⁽²⁾ ,VI | IV,VI | IV,V ⁽²⁾ ,VI | _ | | | | |
| DN80 | | | 2Bar | PTFE | | - | IV,V,VI | IV,\ | /,VI | | | |
| -100 | 46 | 20 | 750 | ULF | - | | | | | | IV,V,VI | |
| NPS 3 to 4) | | | 3Bar | PTFE ULF | IV,V,VI | N | I/A | | | | | |
| | | | 750 4Bar | PTFE | 1 | | | N, | /A | | | |
| | | | | ULF | | | | | | | | |
| | | | 750 2Bar | PTFE | - | I | V | | | | | |
| DNIGO | 70 | | | ULF | - | | | - 1 | / | | | |
| DN80 (NPS 3) | 70 Bal | 20 | 750 3Bar | PTFE | IV | | | | | | IV | |
| (55) | Ju. | | 750 | ULF | - | N | I/A | | | | | |
| | | | 4Bar | PTFE | - | | | N, | /A | | | |
| | | | 750 | ULF | | | | | | | | |
| | | | 2Bar | PTFE | IV,VI | IV,V | ⁽²⁾ ,VI | | | | | |
| DN80 | | | 750 | ULF | (2) | | | IV,\ | /,VI | | | |
| -100 | 70 | 40 | 3Bar | PTFE | - IV,V ⁽²⁾ ,VI | | | | | | IV,V,VI | |
| NPS 3 to 4) | | | 750 | ULF | 0.43.43.41 | N | I/A | | | | | |
| | | | 4Bar | PTFE | IV,V,VI | | | N, | /A | | | |
| | | | 750 | ULF | | IV ⁽²⁾ | 1) / | | | | | |
| | | | 2Bar | PTFE | | 10(2) | IV | IV | , | | | |
| | 90 | 20 | 750 | ULF | IV | | | , , | V | | IV | |
| | Bal | 20 | 3Bar | PTFE | 10 | N | I/A | | | | IV | |
| | | | 750 | ULF | | 11 | 1/1 | N, | /A | | | |
| DN100 | | | 4Bar | PTFE | | | | 14/ | | | | |
| (NPS 4) | | | 750 | ULF | IV ⁽²⁾ ,VI | IV,VI | IV,V ⁽²⁾ ,VI | | | | | |
| | | | 2Bar | PTFE | ,,,, | , | ,. , | IV,V ⁽²⁾ ,VI | IV. | V,VI | | |
| | 90 | 40 | 750 | ULF | 1 | | | | , | , | IV,\ | /,VI |
| | | | 3Bar | PTFE | IV,V ⁽²⁾ ,VI | N | I/A | | | | • | |
| | | | 750 | ULF | - | | | N, | /A | IV,V ⁽²⁾ ,VI | | |
| | | | 4Bar | PTFE | | | | - | | | | |
| | 90 | 40 | 1200 | ULF | IV,V,VI | | | IV,V ⁽²⁾ ,VI | IV, | V,VI | | |
| | | | | PTFE ULF | | | | | | | | |
| DN150 (NPS 6) | 136 Bal | 60 | 1200 | PTFE | IV | N | I/A | IV ⁽²⁾ | | IV | | |
| (141.70) | Ddl | | - | ULF | | | | VI | | | | |
| | 136 | 60 | 1200 | PTFE | IV,VI | | | IV ⁽²⁾ ,VI | IV,VI | IV,V ⁽²⁾ ,VI | IV,V,VI | |
| 1. CLVI shute | 11 | | 1 | | | | | 1 7 . 7, 7 1 | | 1 | | L |

Table 4 contains information regarding the maximum pressure drop capability of the GX with an extension or bellows bonnet and S31603 trim. Maximum pressure

drop is calculated at the maximum supply pressure for each construction. The allowable leakage classes are given in table 5.

Table 4. Maximum Pressure Drops with Extension/Bellows Bonnet Construction with High Strength Stem

| | | | | | Air to Open | · | | | | Air to Close | | | | |
|----------------------|------|--------|----------------|-------------|----------------|-------------------|---------------------|-------------------|----------------------|-------------------|-------------------|-------------------|---------------|--------------|
| | Port | Max | Actua- tor | | ope | | | Su | ipply pressu | ıre | | | Max Press | ure Limits |
| Valve Size | Size | Travel | con- struc- | Packing | Max ∆P | 2 Bar (29 psi) | 2.5 Bar (36 psi) | 3 Bar (44 psi) | 3.44 Bar (50 psi) | 4 Bar (58 psi) | 5 Bar (72 psi) | 6 Bar (87 psi) | ΔΡ | Supply |
| | mm | mm | tion | | bar (psi) | bar (psi) | bar (psi) | bar (psi) | bar (psi) | bar (psi) | bar (psi) | bar (psi) | bar (psi) | bar (psi) |
| | | | 225 | ULF | | | 1.7 | | | | • | | | 5.6 |
| | | | 2Bar | PTFE | | (7: | 50) | 51 (75 | | | | | | (81) |
| | 4.8 | 20 | 225 3Bar | ULF PTFE | 51.7 (750) | | | (75 | 50) | | 1.7 50) | F1 7 | 51.7 (750) | |
| DN15 | | | 225 | ULF | (,,,,, | N | /A | | | (,, | 30, | 51.7 (750) | (/50) | 6 (87) |
| to 25 | | | 4Bar | PTFE | | | | N, | /A | | | | | |
| (NPS 1/2 | | | 225 | ULF | | 51 | 1.7 | | | | | | | 5.6 |
| to 1) | | | 2Bar | PTFE | | (7 | 50) | 51 | | | | | | (81) |
| | 9.5 | 20 | 225 | ULF | 51.7 | | | (75 | 50) | | 1.7 | | 51.7 | |
| | | | 3Bar | PTFE ULF | (750) | N | /A | | | (7: | 50) | 51.7 (750) | (750) | 6 (87) |
| | | | 225 4Bar | PTFE | | | | N, | /A | | | (750) | | (67) |
| | | | 225 | ULF | | 51 | 1.7 | | | | | | | 5.6 |
| DN20 | | | 2Bar | PTFE | | | 50) | 51 | .7 | | | | | (81) |
| to 40 | 1.4 | 20 | 225 | ULF | 51.7 | | | (75 | | 51 | 1.7 | | 51.7 | |
| (NPS 3/4 | 14 | 20 | 3Bar | PTFE | (750) | N | /A | | | (7 | 50) | 51.7 | (750) | 6 |
| to 1-1/2) | | | 225 | ULF | | | <i> </i> / (| N | /A | | | (750) | | (87) |
| | | | 4Ваг | PTFE | 27.2 | 20.2 | 1 | , | ' | | | | | |
| | | | 225 | ULF | 27.3 (396) | 39.2 (569) | 51.7 | | | | | | | 5.6 |
| | | | 2Bar | PTFE | 42.0 | 51.7 | (750) | | - | | | | | (81) |
| DN25 | | | | FIFE | (609) | (750) | | 51 (75 | | 51 | 1.7 | | 51.7 | |
| to 50 (NPS 1 to 2 | 22 | 20 | 225 | ULF | 43.4 (629) | | | , | -, | | 50) | | (750) | |
| (NF3 1 to 2 | | | 3Bar | PTFE | | N | /A | | | | | 51.7 | | 6 |
| | | | 225 | ULF | 51.7 | | <i> </i> / \ | | | | | (750) | | (87) |
| | | | 4Bar | PTFE | (750) | | | N, | /A | | | | | |
| | | | | ULF | 10.2 | 14.6 | 25.3 | 35.9 | 45.3 | | | | | |
| | | | 225 2Bar | | (148) 15.7 | (212) 20.1 | (367) 30.8 | (521) 41.4 | (657) 50.8 | 51.7 (750) | | | | 5.6 (81) |
| | | | ZDdI | PTFE | (228) | (292) | (447) | (600) | (737) | (730) | | | | (01) |
| | | | | ULF | 16.2 | | 1 | 25.9 | 35.3 | 47.2 | 1 | | | |
| | | | 225 | OLI | (235) | | | (376) | (512) | (685) | 51.7 | | 51.7 | |
| | | | 3Bar | PTFE | 21.7 (315) | | | 31.4 (455) | 40.8 (592) | 51.7 (750) | (750) | 51.7 | (750) | 6 |
| DNI40 | | | | | 28.3 | N | /A | (133) | (332) | 47.2 | - | (750) | | (87) |
| DN40 to 50 | 26 | 20 | 225 | ULF | (410) | | | N | /Δ | (685) | | | | |
| (NPS 1-1/2 | 36 | 20 | 4Bar | PTFE | 33.7 | | | 14) | N/A | 51.7 | | | | |
| to 2) | | | | | (489) 48.0 | 33.7 | 1 | | | (750) | | | | |
| | | | 750 | ULF | (696) | (489) | 51.7 | | | 1 | | | 51.7 | 2.8 |
| | | | 2Bar | PTFE | | 39.2 | (750) | | | | | | (750) | (41) |
| | | | 75- | ULF | | (569) | 1 | | | 1 | | | | |
| | | | 750 3Bar | PTFE | 51.7 (750) | | | | | 1 | | | | |
| | | | 750 | ULF | (750) | N | /A | | | 1 | | | N, | /A |
| | | | 4Bar | PTFE | | | | N, | /A | | | | | |

Table 4. Maximum Pressure Drops with Extension/Bellows Bonnet Construction with High Strength Stem (continued)

| | | | Actua- | | Air to Open | | | | | Air to Close | | | | |
|-----------------|--------------|---------------|----------------|-------------|----------------|-------------------|---------------------|-------------------|----------------------|-------------------|-------------------|-------------------|---------------|--------------|
| Valve | Port Size | Max Travel | tor | | | | | Su | ipply pressu | re | | | Max Press | ure Limits |
| Size | Size | iiuvei | con- struc- | Packing | Max ∆P | 2 Bar (29 psi) | 2.5 Bar (36 psi) | 3 Bar (44 psi) | 3.44 Bar (50 psi) | 4 Bar (58 psi) | 5 Bar (72 psi) | 6 Bar (87 psi) | ΔΡ | Supply |
| | mm | mm | tion | | bar (psi) | bar (psi) | bar (psi) | bar (psi) | bar (psi) | bar (psi) | bar (psi) | bar (psi) | bar (psi) | bar (psi) |
| | | | 225 | ULF | | 9.0 (131) | 15.5 (225) | 22.0 (319) | 27.8 (403) | 35.1 (509) | 48.1 (698) | | | 5.6 |
| | | | 2Bar | PTFE | | 12.3 (178) | 18.8 (273) | 25.4 (368) | 31.1 (451) | 38.4 (557) | 51.5 (747) | | | (81) |
| | | | 225 | ULF | 9.9 (144) | | l | 15.9 (231) | 21.6 (313) | 28.9 (419) | 42.0 (609) | | 51.7 | |
| | | | 3Bar | PTFE | 13.3 (193) |] | | 19.2 (278) | 25.0 (363) | 32.3 (468) | 45.3 (657) | 51.7 | (750) | 6 |
| | | | 225 | ULF | 17.3 (251) | N | /A | | | 28.9 (419) | 42.0 (609) | (750) | | (87) |
| DN50 | 46 | 20 | 4Bar | PTFE | 20.7 (300) | | | N | /A | 32.3 (468) | 45.3 (657) | | | |
| (NPS 2) | 46 | 20 | 750 | ULF | 29.4 (426) | 20.7 (300) | 42.4 (615) | | | | | | 51.7 | 2.8 |
| | | | 2Bar | PTFE | 32.8 (476) | 24.0 (348) | 45.8 (664) | | | | | | (750) | (41) |
| | | | 750 | ULF | 46.5 (674) | | | - | | | | | | |
| | | | 3Bar | PTFE | 49.9 (724) |] N | 10 | | | | | | N | 14 |
| | | | 750 | ULF | 46.5 (674) | i in | /A | N/A | | | | | N, | /A |
| | | | 4Bar | PTFE | 49.9 (724) | | | IN, | ĮA. | | | | | |
| | | | 750 | ULF | 46.4 (673) | 32.1 (466) | 51.7 | | | | | | | |
| DN80 | 36 | 20 | 2Bar | PTFE | 51.1 (741) | 36.8 (534) | (750) | 51 (7! | 1.7 50) | | | | 51.7 (750) | 3.9 (57) |
| (NPS 3) | 50 | 20 | 750 3Bar | ULF PTFE | 51.7 | N | /A | | | | | | | |
| | | | 750 4Bar | ULF PTFE | (750) | | ,,, | N | /A | | | | N, | /A |
| | | | 750 | ULF | 28.4 (412) | 19.7 (286) | 41.5 (602) | | | | | | | |
| | | | 2Bar | PTFE | 31.3 (454) | 22.6 (328) | 44.3 (643) | | 1.7 | | | | 51.7 | 3.9 |
| DN80 -100 | 46 | 20 | 750 | ULF | 45.5 (660) | | | (7! | 50) | | | | (750) | (57) |
| (NPS 3 to 4) | 10 | 20 | 3Bar | PTFE | 48.4 (702) | N | /A | | | | | | | |
| | | | 750 | ULF | 45.5 (660) | | ,,, | N | /A | | | | N, | /A |
| | | | 4Bar | PTFE | 48.4 (702) | | | | | | | | | |
| | | | 750 2Bar | ULF PTFE | | | 1.7 50) | | 1.7 | | | | 51.7 | 3.9 |
| DN80 (NPS 3) | 70 Bal | 20 | 750 3Bar | ULF PTFE | 51.7 (750) | | | (7! | 50) | | | | (750) | (57) |
| | | | 750 4Bar | ULF PTFE | | N | /A | N | /A | | | | N, | /A |

Table 4. Maximum Pressure Drops with Extension/Bellows Bonnet Construction with High Strength Stem (continued)

| | | | Actua- | | Air to Open | | | | | Air to Close | | | | |
|--------------|--------------|---------------|----------------|---------------|----------------|-------------------|---------------------|-------------------|----------------------|-------------------|-------------------|-------------------|---------------|--------------|
| Valve | Port Size | Max Travel | tor | | | | | | ıpply pressu | | | | Max Press | ure Limits |
| Size | | | con- struc- | Packing | Max ∆P | 2 Bar (29 psi) | 2.5 Bar (36 psi) | 3 Bar (44 psi) | 3.44 Bar (50 psi) | 4 Bar (58 psi) | 5 Bar (72 psi) | 6 Bar (87 psi) | ΔΡ | Supply |
| | mm | mm | tion | | bar (psi) | bar (psi) | bar (psi) | bar (psi) | bar (psi) | bar (psi) | bar (psi) | bar (psi) | bar (psi) | bar (psi) |
| | | | 750 | ULF | 11.5 (167) | 17.2 (249) | 26.6 (386) | 35.9 (521) | 44.2 (641) | | | | 45.1 (654) | |
| | | | 2Bar | PTFE | 12.8 (186) | 18.4 (267) | 27.8 (403) | 37.2 (540) | 45.4 (658) | | | | 46.4 (673) | 3.5 |
| DN80 -100 | | | 750 | ULF | 23.0 (334) | | | 35.9 (521) | 44.2 (641) | | | | 45.1 (654) | (51) |
| (NPS 3 to 4) | 70 | 40 | 3Bar | PTFE | 24.2 (351) | | | 37.2 (540) | 45.4 (658) | | - | | 46.4 (673) | |
| | | | 750 | ULF | 31.9 (463) | N | /A | | | 36.9 (535) | | | 44.4 (644) | 4.4 |
| | | | 4Bar | 4Bar PTFE | 33.1 (480) | | | N | /A | 38.2 (554) | | | 45.6 (661) | (64) |
| | | | 750 | ULF | | 46.8 (679) | 51.7 | | | | | | | |
| | 90 | | 2Bar | PTFE | 51.7 | 51.7 (750) | (750) | 51 (7! | .7 50) | | | | 51.7 (750) | 3.9 (57) |
| | Bal | 20 | 750 3Bar | ULF PTFE | (750) | | | | | | | | | |
| | | | 750 | ULF | | N | /A | NI NI | /A | | | | N | /^ |
| | | | 4Bar | PTFE | | | | | | | | | | /A |
| DN100 | | | 750 | ULF | 7.0 (102) | 10.4 (151) | 16.1 (234) | 21.7 (315) | 26.7 (387) | | | | 27.3 (396) | |
| (NPS 4) | | | 2Bar | PTFE | 7.7 (112) | 11.2 (162) | 16.8 (244) | 22.5 (326) | 27.5 (399) | | | | 28.0 (406) | 3.5 |
| | 90 40 | 750 | ULF | 13.9 (202) | | | 21.7 (315) | 26.7 (387) | | | | 27.3 (396) | (51) | |
| | | 3Bar | PTFE | 14.7 (213) | | | 22.5 (326) | 27.5 (399) | | - | | 28.0 (406) | | |
| | | 750 | ULF | 19.3 (280) | N | /A | N. | 14 | 22.3 (323) | | | 26.9 (390) | 4.4 | |
| | | 4Ваг | PTFE | 20.0 (290) | | | N. | /A | 23.1 (335) | | | 27.6 (400) | (64) | |

Table 5. Shutoff Classification Capability for Extension / Bellows Bonnet Construction and High Strength Stem⁽¹⁾

| Tuble 51 | liuco | T Classii | | Capabili | Air to Open | 1131011 / 150 | | net Consti | Air to Close | a riigii sa | engen see | |
|------------------------|-------|-----------|------------------------|-------------|--|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------|
| | Port | Max | Actua- tor | | | | | 9 | supply pressur | e | | |
| Valve Size | Size | Travel | con- struc- tion | Packing | Shutoff | 2 Bar (29 psi) | 2.5 Bar (36 psi) | 3 Bar (44 psi) | 3.44 Bar (50 psi) | 4 Bar (58 psi) | 5 Bar (72 psi) | 6 Bar (87 psi) |
| | mm | mm | | | n (2) | Shutoff | Shutoff | Shutoff | Shutoff | Shutoff | Shutoff | Shutoff |
| | | | 225 | ULF | IV,V,VI ⁽²⁾ | IV, | V,VI | | | | | |
| | | | 2Bar | PTFE | | | | IV,\ | /,VI | | | |
| | 4.8 | 20 | 225 | ULF | | | | | | IV, | V,VI | |
| | | | 3Bar | PTFE | IV,V,VI | N | /A | | | | | IV,V,VI |
| DN15 | | | 225 4Bar | ULF PTFE | | | | N | /A | | | |
| to 25 (NPS 1/2 to | | | - | ULF | IV,V ⁽²⁾ | | IV,V,VI ⁽²⁾ | | <u> </u> | | | |
| 1) | | | 225 2Bar | PTFE | 10,017 | IV,V,VI ⁽²⁾ | IV,V,VI | IV,V,VI | | | | |
| | | | 225 | ULF | IV,V,VI ⁽²⁾ | | 10,0,01 | IV,V,VI ⁽²⁾ | IV,V,VI | | | |
| | 9.5 | 20 | 3Bar | PTFE | 10,0,010 | | | IV,V,VI | | IV, | V,VI | |
| | | | 225 | ULF | | N | /A | | | | | IV,V,VI |
| | | | 4Bar | PTFE | IV,V,VI | | | N, | /A | | | |
| | | | 225 | ULF | IV | | | IV,V,VI ⁽²⁾ | | | | |
| DNIDO | | | 2Bar | PTFE | | IV,V ⁽²⁾ | IV,V,VI ⁽²⁾ | IV,V,VI | IV,V,VI | | | |
| DN20 to 40 | | | 225 | ULF | IV,V ⁽²⁾ | | | | /2) | | | |
| (NPS 3/4 to | 14 | 20 | 3Bar | PTFE | | 1 | | IV,V, | VI(2) | IV, | V,VI | |
| 1-1/2) | | | 225 | ULF | IV,V,VI ⁽²⁾ | N | /A | | 1.4 | | | IV,V,VI |
| | | | 4Ваг | PTFE | | | | N | /A | | | |
| | | | 225 | ULF | | IV,VI | IV,V ⁽²⁾ ,VI | 11/1/1/1 | | | | |
| | | | 2Bar | PTFE | IV,VI | IV,V ⁽²⁾ ,VI | 10,0(2),01 | IV,V,VI | IV,V,VI | | | |
| DN25 | 22 | 20 | 225 | ULF | | | • | IV,V ⁽²⁾ ,VI | | 11/ | ./ \/I | |
| to 50 (NPS 1 to 2 | 22 | 20 | ЗВаг | PTFE | IV,V ⁽²⁾ ,VI |] | /A | 10,01-7,01 | | 10, | v,vi | IV,V,VI |
| (11131102 | | | 225 | ULF | | | | N | /A | | | 10,0,01 |
| | | | 4Ваг | PTFE | IV,V,VI | | | 131 | | | | |
| | | | 225 | ULF | | IV ⁽²⁾ ,VI | IV,VI | IV,V ⁽²⁾ ,VI | | IV,V,VI | | |
| | | | 2Bar | PTFE | IV ⁽²⁾ ,VI | IV,VI | IV,V ⁽²⁾ ,VI | | IV,V ⁽²⁾ ,VI | ,., | | |
| | | | 225 | ULF | | | | IV,VI | | | IV,V,VI | |
| | | | 3Bar | PTFE | IV,VI | N | /A | IV,V ⁽²⁾ ,VI | | IV,V ⁽²⁾ ,VI | | IV,V,VI |
| DN40 | | | 225 | ULF PTFE | IV,V ⁽²⁾ ,VI | | | N, | /A | | | |
| to 50 (NPS 1-1/2 to | 36 | 20 | 4Bar | ULF | 10,0(2),01 | | | | | | | |
| 2) | | | 750 2Bar | PTFE | IV,V ⁽²⁾ ,VI ⁽²⁾ | IV,V ⁽²⁾ ,VI | IV,V,VI | | | | | |
| , | | | - | ULF | | | | | | | | |
| | | | 750 3Bar | PTFE | | | | | | | | |
| | | | 750 | ULF | IV,V,VI | N | /A | | | | | |
| | | | 4Bar | PTFE | | | | N, | /A | | | |
| | | | 225 | ULF | | (-) | | IV,VI | (-) | | | |
| | | | 2Bar | PTFE | | IV ⁽²⁾ ,VI | IV,VI | IV,V ⁽²⁾ ,VI | IV,V ⁽²⁾ ,VI | | IV,V,VI | |
| | | | 225 | ULF | n (2) v (1 | | 1 | 0.41.0 | IV,VI | 11.4.4(2) 1.4 | IV,V ⁽²⁾ ,VI | |
| | | | 3Ваг | PTFE | IV ⁽²⁾ ,VI | | | IV,VI | IV,V ⁽²⁾ ,VI | IV,V ⁽²⁾ ,VI | IV,V,VI | N/\/\/ |
| | | | 225 | ULF | IV,VI | 1 N | /A | N/A | 1 | IV,V ⁽²⁾ ,VI | IV,V,VI | |
| DN50 | 46 | 20 | 4Ваг | PTFE | 10,01 | | | | IV,V,VI | | | |
| (NPS 2) | 40 | ∠∪ | 750 | ULF | IV,V ⁽²⁾ ,VI | IV,VI | IV,V ⁽²⁾ ,VI | | | | | |
| | | | 2Bar | PTFE | 17,747,71 | IV,V ⁽²⁾ ,VI | IV,V,VI | | | | | |
| | | | 750 | ULF | | | | | | | | |
| | | | ЗВаг | PTFE | IV,V,VI | N | /A | | | | | |
| | | | 750 | ULF | ,,,, |] | 1 | N. | /A | | | |
| I | | | 4Bar | PTFE | I | | | | ' | | | |

Table 5. Shutoff Classification Capability for Extension / Bellows Bonnet Construction and High Strength Stem⁽¹⁾ (continued)

| | | | Actua- | | Air to Open | | | | Air to Close | | | |
|---------------|------|--------|--------|---------|-------------------------|-------------------------|-------------------------|-------------------------|----------------|-------------------------|----------|----------|
| v. 1 | Port | Max | tor | | | | | 9 | supply pressur | e | | |
| Valve Size | Size | Travel | con- | Packing | Shutoff | 2 Bar | 2.5 Bar | 3 Bar | 3.44 Bar | 4 Bar | 5 Bar | 6 Bar |
| JILC | | | struc- | | Siluton | (29 psi) | (36 psi) | (44 psi) | (50 psi) | (58 psi) | (72 psi) | (87 psi) |
| | mm | mm | tion | | | Shutoff | Shutoff | Shutoff | Shutoff | Shutoff | Shutoff | Shutoff |
| | | | 750 | ULF | IV,V ⁽²⁾ ,VI | IV,V ⁽²⁾ ,VI | IV,V,VI | | | | | |
| | | | 2Bar | PTFE | 10,000,01 | 10,017,01 | 10,0,01 | 1\/ \ | /,VI | | | |
| DN80 | 36 | 20 | 750 | ULF | | | | iv, | v, v i | | | |
| (NPS 3) | 30 | 20 | ЗВаг | PTFE | IV,V,VI | N | /A | | | | | |
| | | | 750 | ULF | 1,,,,,,, | | ,,, | N | /A | | | |
| | | | 4Bar | PTFE | | | | '' | ,,, | | | |
| | | | 750 | ULF | IV,V ⁽²⁾ ,VI | IV,VI | IV,V ⁽²⁾ ,VI | | | | | |
| 51100 | | | 2Bar | PTFE | 10,011,01 | 14,41 | IV,V,VI | IV. | /,VI | | | |
| DN80 -100 | 46 | 20 | 750 | ULF | | | | ۱۷, | v, v i | | | |
| (NPS 3 to 4) | 10 | 20 | ЗВаг | PTFE | IV,V,VI | N | /A | | | | | |
| , | | | 750 | ULF | .,,,,,, | | ,,, | N | /A | | | |
| | | | 4Bar | PTFE | | | | '' | ,,, | | | |
| | | | 750 | ULF | | l r | V | | | | | |
| | | | 2Bar | PTFE | | | | ľ | V | | | |
| DN80 | 70 | 20 | 750 | ULF | IV | | | · | • | | | |
| (NPS 3) | Bal | 20 | ЗВаг | PTFE | | N | /A | | | | | |
| | | | 750 | ULF | | | ,,, | N | /A | | | |
| | | | 4Bar | PTFE | | | | | , | | | |
| | | | 750 | ULF | IV,VI | IV.V | (2),VI | | | | | |
| DNIGO | | | 2Bar | PTFE | , | ,. | , | IV. | /,VI | | | |
| DN80 -100 | 70 | 40 | 750 | ULF | IV,V ⁽²⁾ ,VI | | | • | • | | _ | - |
| (NPS 3 to 4) | | | 3Bar | PTFE | | N | /A | | | | | |
| | | | 750 | ULF | IV,V,VI | | , | N | /A | IV,V,VI | | |
| | | | 4Bar | PTFE | , , | | 1 | | | , , | | |
| | | | 750 | ULF | | IV ⁽²⁾ | IV | | | | | |
| | | | 2Bar | PTFE | | | | ļ | V | | | |
| | 90 | 20 | 750 | ULF | IV | | | | | | | |
| | Bal | | 3Bar | PTFE | | N | /A | | | _ | | |
| | | | 750 | ULF | | | , | N | /A | | | |
| DN100 | | | 4Bar | PTFE | | | 1 | | 1 | | 1 | |
| (NPS 4) | | | 750 | ULF | IV ⁽²⁾ ,VI | IV,VI | IV,V ⁽²⁾ ,VI | | | | | |
| | | | 2Bar | PTFE | ļ . | | <u> </u> | IV,V ⁽²⁾ ,VI | IV,V,VI | | | |
| | 90 | 40 | 750 | ULF | | | | | | | | |
| | | | 3Bar | PTFE | IV,V ⁽²⁾ ,VI | N | /A | | | | | |
| | | | 750 | ULF | 1 | | • | N | /A | IV,V ⁽²⁾ ,VI | | |
| | | | 4Bar | PTFE | orts greater than o | | | | • | | | |

CLVI shutoff is achieved through the use of a soft seat in ports greater than or equal to 22mm.
 Shutoff classification not available on hard-faced trim.

Table 6 contains information regarding the maximum pressure drop capability of the GX with a standard bonnet and CW2M trim. Maximum pressure drop is

calculated at the maximum supply pressure for each construction. The allowable leakage classes are given in table 7.

Table 6. Maximum Pressure Drops with Standard Bonnet Construction and Low Strength Stem

| | | | A | | Air to Open | | | | | Air to Close | | | | |
|---------------------|--------------|---------------|----------------|-------------|----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-------------------|-----------------|---------------|-------------|
| Valve | Port Size | Max Travel | Actua- tor | | | | | Su | ipply pressu | re | | | Max Press | ure Limits |
| Size | Size | Havei | con- struc- | Packing | Max ∆P | 2 Bar | 2.5 Bar | 3 Bar | 3.44 Bar | 4 Bar | 5 Bar (73 psi) | 6 Bar | ΔΡ | Supply |
| | | | tion | | bar | (29 psi) bar | (36 psi) bar | (44 psi) bar | (50 psi) bar | (58 psi) bar | (72 psi) bar | (87 psi) bar | bar | bar |
| | mm | mm | | | (psi) | (psi) | (psi) | (psi) | (psi) | (psi) | (psi) | (psi) | (psi) | (psi) |
| | | | 225 | ULF | | 51 | | | | | | | | 4.1 |
| | | | 2Bar | PTFE | | (75 | 50) | 51 | | | | | | (59) |
| | 4.8 | 20 | 225 3Bar | ULF PTFE | 51.7 (750) | | | (75 | 50) | 51.7 (750) | | | 51.7 (750) | 4.5 |
| | | | 225 | ULF | (750) | N, | /A | | | (750) | | | (750) | 4.6 (67) |
| DN15 to 25 | | | 4Bar | PTFE | | | | N, | /A | | | | | () |
| (NPS 1/2 | | | 225 | ULF | | 51 | .7 | | | | | | | 4.1 |
| to 1) | | | 2Bar | PTFE | | (75 | 50) | 51 | .7 | | | | | (59) |
| | 9.5 | 20 | 225 | ULF | 51.7 | | | (75 | 50) | 51.7 | | | 51.7 | |
| | | | 3Bar | PTFE | (750) | N | /A | | | (750) | | | (750) | 4.6 |
| | | | 225 4Bar | ULF PTFE | | | | N, | /A | | | | | (67) |
| | | | 225 | ULF | | 51 | 7 | | | | | | | 4.1 |
| DN20 | | | 2Bar | PTFE | | (75 | | 51 | 7 | | | | | (59) |
| to 40 | | 20 | 225 | ULF | 51.7 | , | • | (75 | | 51.7 | | | 51.7 | , , |
| (NPS 3/4 | 14 | 20 | 3Bar | PTFE | (750) | N, | /^ | | | (750) | | | (750) | 4.6 |
| to 1-1/2) | | | 225 | ULF | | 14) | ĮA. | N, | /A | | | | | (67) |
| | | | 4Ваг | PTFE | 27.2 | 20.2 | 1 | , | | | | | | |
| | | | 225 | ULF | 27.3 (396) | 39.2 (569) | 51.7 | | | | | | | 4.1 |
| | | | 2Bar | PTFE | 42.0 | 51.7 | (750) | | _ | | | | | (59) |
| DN25 | | | | PIFE | (609) | (750) | | 51 | | 51.7 | | | 51.7 | |
| to 50 | 22 | 20 | 225 | ULF | 43.4 (629) | | | , | - / | (750) | | | (750) | |
| (NPS 1 to 2 | | | ЗВаг | PTFE | (023) | N, | /^ | | | | | | | 4.6 |
| | | | 225 | ULF | 51.7 | 14) | ĮA. | | | | | | | (67) |
| | | | 4Bar | PTFE | (750) | | | N, | /A | | | | | |
| | | | | ULF | 10.2 | 14.6 | 25.3 | 35.9 | 45.3 | | | | | |
| | | | 225 2Bar | | (148) 15.7 | (212) 20.1 | (367) | (521) 41.4 | (657) 50.8 | 51.7 (750) | | | | 4.1 (59) |
| | | | ZDdi | PTFE | (228) | (292) | (447) | (600) | (737) | (750) | | | | (39) |
| DN40 | to 50 | | | ULF | 16.2 | | 1 | 25.9 | 35.3 | 47.2 | | | | |
| | | 20 | 225 | OLI | (235) | | | (376) | (512) | (685) | | | 51.7 | |
| (NPS 1-1/2 to 2) | | | 3Bar | PTFE | 21.7 (315) | | | 31.4 (455) | 40.8 (592) | 51.7 (750) | | | (750) | 1.6 |
| 1 20 2, | | | | | 28.3 | N, | /A | (133) | (332) | 47.2 | | | | 4.6 (67) |
| | | | 225 | ULF | (410) | | | N. | ΙΔ | (685) | | | | ` ′ |
| | | | 4Ваг | PTFE | 33.7 | | | IN, | 1/1 | 51.7 | | | | |
| | | | | = | (489) | | | l | | (750) | | | | |

Table 6. Maximum Pressure Drops with Standard Bonnet Construction and Low Strength Stem (continued)

| | | | | | Air to Open | | | | | Air to Close | | | | |
|---------------------|--------------|---------------|----------------|---------|----------------|-------------------|---------------------|-------------------|----------------------|-------------------|-------------------|-------------------|---------------|--------------|
| Valve | Port Size | Max Travel | Actua- tor | | | | | Su | ipply pressu | re | | | Max Press | ure Limits |
| Size | Size | navei | con- struc- | Packing | Max ∆P | 2 Bar (29 psi) | 2.5 Bar (36 psi) | 3 Bar (44 psi) | 3.44 Bar (50 psi) | 4 Bar (58 psi) | 5 Bar (72 psi) | 6 Bar (87 psi) | ΔΡ | Supply |
| | mm | mm | tion | | bar (psi) | bar (psi) | bar (psi) | bar (psi) | bar (psi) | bar (psi) | bar (psi) | bar (psi) | bar (psi) | bar (psi) |
| | | | 750 | ULF | 48.0 (696) | 33.7 (489) | | | | | | | 51.7 | 2.3 |
| | | | 2Bar | PTFE | 51.7 (750) | 39.2 (569) | | | | | | | (750) | (33) |
| DN40 to 50 | | | 750 | ULF | 48.0 (696) | | l . | - | | | | | | |
| (NPS 1-1/2 to 2) | 36 | 20 | 3Bar | PTFE | 51.7 (750) | | | | | | | | | |
| | | | 750 | ULF | 48.0 (696) | N, | /A | | | | | | N, | /A |
| | | | 4Bar | PTFE | 51.7 (750) | | | N | /A | | | | | |
| | | | 225 | ULF | , , | 9.0 (131) | 15.5 (225) | 22.0 (319) | 27.8 (403) | 35.1 (509) | | | 36.4 (528) | 4.1 |
| | | | 2Bar | PTFE | | 12.3 (178) | 18.8 (273) | 25.4 (368) | 31.1 (451) | 38.4 (557) | | | 39.7 (576) | (59) |
| | | | 225 | ULF | 9.9 (144) | , , | , , | 15.9 (231) | 21.6 (313) | 28.9 (419) | | | 36.7 (532) | |
| | | | 3Bar | PTFE | 13.3 (193) | | | 19.2 (278) | 25.0 (363) | 32.3 (468) | - | | 40.1 (582) | 4.6 |
| | | | 225 | ULF | 17.3 (251) | N | /A | | | 28.9 (419) | | | 36.7 (532) | (67) |
| DN50 | | | 4Bar | PTFE | 20.7 (300) | | | N ₁ | /A | 32.3 (468) | | | 40.1 (582) | |
| (NPS 2) | 46 | 20 | 750 | ULF | 29.4 (426) | 20.7 (300) | | | | | <u>I</u> | | 33.7 (489) | 2.3 |
| | | | 2Bar | PTFE | 32.8 (476) | 24.0 (348) | | | | | | | 37.1 (538) | (33) |
| | | | 750 | ULF | 29.4 (426) | | | - | | | | | | |
| | | | 3Bar | PTFE | 32.8 (476) | | | | | | | | | |
| | | | 750 | ULF | 29.4 (426) | , N | /A | | 10 | | | | N, | /A |
| | | | 4Bar | PTFE | 32.8 (476) | | | N | /A | | | | | |
| | | | 750 | ULF | 46.4 (673) | 32.1 (466) | 51.7 (750) | | | | | | | |
| | | | 2Bar | PTFE | 51.1 (741) | 36.8 (534) | 51.7 (750) | 51 | 1.7 | | | | 51.7 | 3.9 |
| DN80 | | 70 | 750 | ULF | 46.4 (673) | | | | 50) | | | | (750) | (57) |
| (NPS 3) | ٥٥ | 20 | 3Bar | PTFE | 51.1 (741) | .1 | | | | | | | | |
| | | | 750 | ULF | 46.4 (673) | 4 N/A | N.I. | IΔ | | | | K1 | IΔ | |
| | | | 4Bar | PTFE | 51.1 (741) | | | N/A | | | | N, | <i>i</i> A | |

Table 6. Maximum Pressure Drops with Standard Bonnet Construction and Low Strength Stem (continued)

| Tuble | - IVIGA | | | Drops w | Air to Open | | inet cor | isti detio | | Air to Close | | ii (contin | | |
|------------------|---------|--------|----------------|-------------|--------------------|----------------------------|---------------------|-------------------|----------------------|-------------------|-------------------|-------------------|---------------|--------------|
| | Port | Max | Actua- tor | | Open | | | Su | ipply pressu | re | | | Max Press | ure Limits |
| Valve Size | Size | Travel | con- struc- | Packing | Max ∆P | 2 Bar (29 psi) | 2.5 Bar (36 psi) | 3 Bar (44 psi) | 3.44 Bar (50 psi) | 4 Bar (58 psi) | 5 Bar (72 psi) | 6 Bar (87 psi) | ΔΡ | Supply |
| | mm | mm | tion | | bar (psi) | bar (psi) | bar (psi) | bar (psi) | bar (psi) | bar (psi) | bar (psi) | bar (psi) | bar (psi) | bar (psi) |
| | | | 750 | ULF | 28.4 (412) | 19.7 (286) | 41.5 (602) | | | | | | | |
| | | | 2Bar | PTFE | 31.3 (454) | 22.6 (328) | 44.3 (643) | 51 | .7 | | | | 51.7 | 3.9 |
| DN80 -100 | 46 | 20 | 750 | ULF | 28.4 (412) | | | (75 | 50) | | | | (750) | (57) |
| (NPS 3 to 4) | 40 | 20 | ЗВаг | PTFE | 31.3 (454) | l N | 10 | | | | | | | |
| | | | 750 | ULF | 28.4 (412) | l N | /A | N. | 10 | | | | N. | 10 |
| | | | 4Bar | PTFE | 31.3 (454) | | | IN, | /A | | | | N, | A |
| | | | 750 2Bar | ULF PTFE | 51.7 (750) 51.7 | | | | | 51.7 | 3.9 | | | |
| DN80 | 70 | 20 | 750 | ULF | 51.7 | | | (750) | | | | | (750) | (57) |
| (NPS 3) | Bal | | 3Bar 750 | PTFE ULF | (750) | N, | /A | N/A | | | | | | |
| | | | 4Bar | PTFE | | | | | | | | | N, | /A |
| | | | 750 | ULF | 11.5 (167) | 17.2 (249) | 26.6 (386) | 35.9 (521) | 44.2 (641) | | | | 44.2 (641) | |
| | | | 2Bar | PTFE | 12.8 (186) | 18.4 (267) | 27.8 (403) | 37.2 (540) | 45.4 (658) | | | | 45.4 (658) | 3.44 |
| DN80 -100 | 70 | 40 | 750 | ULF | 23.0 (334) | | | 35.9 (521) | 44.2 (641) | | | | 44.2 (641) | (50) |
| (NPS 3 to 4) | 70 | 40 | 750 3Bar | PTFE | 24.2 (351) | N/A | | 37.2 (540) | 45.4 (658) | | | | | |
| | | | 750 | ULF | 23.0 (334) | 1 | /^ | N | 10 | 36.9 (535) | | | 42.5 (616) | 4.3 |
| | | | 4Bar | PTFE | 24.2 (351) | | | N/A | | 38.2 (554) | | | 43.8 (635) | (62) |
| | | | 750 | ULF | | 46.8 (679) | 51.7 (750) | | | | | | | |
| | 90 | | 2Bar | PTFE | 51.7 | 51.7 (750) | 51.7 (750) | 51 (75 | .7 50) | | | | 51.7 (750) | 3.9 (57) |
| | Bal | 20 | 750 3Bar | ULF PTFE | (750) | | | | | | | | | |
| | | | 750 | ULF | | N | /A | N. | /A | | | | N, | |
| | | | 4Bar | PTFE | 7.0 | 10.4 | 16.1 | 21.7 | 26.7 | | 1 | | 26.7 | A |
| DN100 (NPS 4) | | | 750 2Bar | ULF | (102) 7.7 | (151) 11.2 | (234) 16.8 | (315) 22.5 | (387) 27.5 | | | | (387) 27.5 | |
| | | | | PTFE | (112) | (162) | (244) | (326) | (399) | | | | (399) | 3.44 (50) |
| | 90 | 40 | 750 3Bar | ULF | (202) | 2) 7 7 3) 9 N/A – | | (315) | (387) | | _ | | (387) | (50) |
| | | | 3Bar | PTFE | (213) | | | (326) | (399) | 22.3 | | | (399) | |
| | | | 750 4Bar | | (202) | | | N/A | | (323) | | | (373) | 4.3 (62) |
| | | | וספד | PTFE | 14.7 (213) | | | IV/A | | (335) | | (384) | (02) | |

Table 7. Shutoff Classification Capability for Standard Bonnet Construction and Low Strength Stem⁽¹⁾

| Tuble 713 | J. I | ii Ciassii | | Capabili | ty for Stan Air to Open | dura borr | TICE COTISE | uction un | Air to Close | ingen seen | | |
|----------------------|------|------------|----------------|-------------|-------------------------|-------------------|---------------------|-------------------|----------------------|-------------------|-------------------|-------------------|
| | Port | Max | Actua- tor | | | | | 9 | Supply pressure | 2 | | |
| Valve Size | Size | Travel | con- struc- | Packing | Shutoff | 2 Bar (29 psi) | 2.5 Bar (36 psi) | 3 Bar (44 psi) | 3.44 Bar (50 psi) | 4 Bar (58 psi) | 5 Bar (72 psi) | 6 Bar (87 psi) |
| | mm | mm | tion | | | Shutoff | Shutoff | Shutoff | Shutoff | Shutoff | Shutoff | Shutoff |
| | | | 225 | ULF | | IV. | V,VI | | | | | |
| | | | 2Bar | PTFE | | , | <i>,</i> | IV, | V,VI | | | |
| | 4.8 | 20 | 225 | ULF | IV,V,VI | | | | | IV,V,VI | - | |
| | | | 3Bar | PTFE ULF | | N | /A | | | | | |
| DN15 | | | 225 4Bar | PTFE | | | | N | /A | | | |
| to 25 (NPS 1/2 to | | | 225 | ULF | IV,V | | | | | | | |
| 1) | | | 2Bar | PTFE | ,. | IV, | V,VI | | | | | |
| | | | 225 | ULF | | | | - IV,V,VI | | | | |
| | 9.5 | 20 | 3Bar | PTFE | IV,V,VI | | | | | IV,V,VI | - | |
| | | | 225 | ULF | | N | /A | | 1.0 | | | |
| | | | 4Bar | PTFE | | | | N | /A | | | |
| | | | 225 | ULF | IV | | /,V | IV,V,VI | | | | |
| DN20 | | | 2Bar | PTFE | IV,V | IV | ,,v | | | | | |
| to 40 | 14 | 20 | 225 | ULF | 10,0 | | | | v,vi | IV,V,VI | _ | _ |
| (NPS 3/4 to | | 20 | 3Bar | PTFE | | N | /A | | | 1,,,,,,, | | |
| 1-1/2) | | | 225 | ULF | IV,V,VI | | ,,,, | N | /A | | | |
| | | | 4Bar | PTFE | | | | | ' | | | |
| | | | 225 | ULF | | IV,VI | IV,V,VI | - IV,V,VI | | | | |
| DN25 | | | 2Bar | PTFE | IV,VI | IV,V,VI | | | | | | |
| to 50 | 22 | 20 | 225 3Bar | ULF PTFE | | | | | | IV,V,VI | - | |
| (NPS 1 to 2 | | | | ULF | IV,V,VI | N | /A | | | | | |
| | | | 225 4Bar | PTFE | 10,0,01 | | | | /A | | | |
| | | | 225 | ULF | | | IV,VI | | | | | |
| | | | 2Bar | PTFE | | IV,VI | IV,V,VI | IV,V,VI | | | | |
| | | | 225 | ULF | IV,VI | | | IV,VI | IV,V,VI | | | |
| | | | 3Bar | PTFE | | | | IV,V,VI | | IV,V,VI | - | - |
| DN40 | | | 225 | ULF | | IN | /A | N | /^ | | | |
| to 50 | 36 | 20 | 4Bar | PTFE | IV,V,VI | | | IV | /A | | | |
| (NPS 1-1/2 to | 30 | 20 | 750 | ULF | | IV,V,VI | | | | | | |
| 2) | | | 2Bar | PTFE | | 10,0,01 | | | | | | |
| | | | 750 | ULF | IV,V,VI | | | | | | | |
| | | | 3Bar | PTFE | ' ' | N | /A | | | | | |
| | | | 750 | ULF | | | | N | /A | | | |
| | | | 4Bar | PTFE ULF | | | | IV,VI | | | I | |
| | | | 225 2Bar | PTFE | | IV | ,VI | IV,V,VI | IV,V,VI | | | |
| | | | | ULF | | | | 10,0,01 | IV,VI | | | |
| | | | 225 3Bar | PTFE | | | | IV,VI | IV,V,VI | IV,V,VI | - | - |
| | | | 225 | ULF | IV,VI | N | /A | | | | | |
| DN50 | | | 4Bar | PTFE | 1 | | | N | /A | | | |
| DN50 (NPS 2) | 46 | 20 | 750 | ULF | | IV,VI | | | | | L | |
| 1 | | | 2Bar | PTFE | 1 | IV,V,VI | | | | | | |
| | | | 750 | ULF | N/A/A | | 1 | | | | | |
| | | | 3Bar | PTFE | - IV,V,VI | | 1/4 | | | | | |
| | | | 750 | ULF | | N/A | NI/A | | | | | |
| 1 | | | 4Bar | PTFE |] | | N/A | | | | | |

Table 7. Shutoff Classification Capability for Standard Bonnet Construction and Low Strength Stem⁽¹⁾ (continued)

| Tubic 7 | | | | Capabili | Air to Open | | ii - (conti | | | | | |
|---------------|-------------|----------------|------------------------|-----------------|--------------------|------------------------------|--------------------------------|------------------------------|---------------------------------|------------------------------|------------------------------|------------------------------|
| | Port | Max | Actua- tor | | 20 0 211 | | | 9 | Air to Close Supply pressur | e | | |
| Valve Size | Size | Travel | con- struc- tion | Packing | Shutoff | 2 Bar (29 psi) Shutoff | 2.5 Bar (36 psi) Shutoff | 3 Bar (44 psi) Shutoff | 3.44 Bar (50 psi) Shutoff | 4 Bar (58 psi) Shutoff | 5 Bar (72 psi) Shutoff | 6 Bar (87 psi) Shutoff |
| | | | 750 | ULF | | | | Silaton | Silaton | Siluton | Siluton | Silutoii |
| | | | 2Bar | PTFE | | IV, | /,VI | | | | | |
| DN80 | | | 750 | ULF | | | | IV,\ | /,VI | | | |
| (NPS 3) | 36 | 20 | 3Bar | PTFE | IV,V,VI | | | | | | | |
| | | | 750 | ULF | | N | /A | | 1.4 | | | |
| | | | 4Bar | PTFE | | | | IN. | /A | | | |
| | | | 750 | ULF | | IV,VI | IV,V,VI | | | | | |
| | | | 2Bar | PTFE | | 10,01 | 10,0,01 | 1\/ \ | /,VI | | | |
| DN80 -100 | 46 | 20 | 750 | ULF | IV,V,VI | | | 10, | 7, V I | | | |
| (NPS 3 to 4) | 40 | 20 | 3Bar | PTFE | 10,0,01 | N/A | | | | | | |
| , | | | 750 | ULF | | | ,,, | N | /A | | | |
| | | | 4Bar | PTFE | | | | | | | | |
| | | | 750 | ULF | | ľ | V | | | | | |
| | | | 2Bar | PTFE | | | | ľ | V | | | |
| DN80 | 70 Bal | 20 | 750 | ULF PTFE | IV | | | | | | | |
| (NPS 3) | Bai | | 3Bar | ULF | | N | /A | | | | | |
| | | | 750 4Bar | PTFE | | | | N/A | | | | |
| | | | | ULF | | | | | | | | |
| | | | 750 2Bar | PTFE | IV,VI | IV, | /,VI | | | | | |
| DN80 | | | 750 | ULF | | | | IV,\ | /,VI | | | |
| -100 | 70 | 40 | 3Bar | PTFE | | | | | | | | - |
| (NPS 3 to 4) | | | 750 | ULF | IV,V,VI | N | /A | | | | | |
| | | | 4Bar | PTFE | | | | N | /A | IV,V,VI | | |
| | | | 750 | ULF | | | | | | | l | |
| | | | 2Bar | PTFE | | ľ | V | | , | | | |
| | 90 | 20 | 750 | ULF | 15.7 | | | ľ | V | | | |
| | Bal | 20 | ЗВаг | PTFE | IV | N | / Λ | | | | | |
| | | | 750 | ULF | | N/A IV,VI IV,V,VI | | N | /A | | | |
| DN100 | | | 4Bar | PTFE | | | | IN, | /A | | | |
| (NPS 4) | | | 750 | ULF | IV,VI | | | | | | | |
| | | | 2Bar | PTFE | 17,71 | | | IV V | /,VI | | | |
| | 90 | 40 | 750 | ULF | | | | | ., | | | |
| | | - | 3Bar | PTFE | IV,V,VI | | | | | | | |
| | | | 750 | ULF | | | • | N | /A | IV,V,VI | | |
| 1 (1) (1) | . tt : | | 4Bar | PTFE | | | | | | | | |
| I. CLVI shuto | oπ is achie | eved through t | ne use of a | sort seat in po | rts greater than o | or equal to 22mi | n. | | | | | |

Table 8 contains information regarding the maximum pressure drop capability of the GX with a bellows bonnet and CW2M trim. Maximum pressure drop is

calculated at the maximum supply pressure for each construction. The allowable leakage classes are given in table 9.

Table 8. Maximum Pressure Drops with Bellows Bonnet Construction and Low Strength Stem

| Valve Size Frage Frage Size Frage Size Si | | | illiulli Fi | | • | Air to Open | | | | | Air to Close | | | | |
|--|-----------|------|-------------|---------------|---------|----------------|-----------------------|------|-------|---------------|--------------|-------|---------------|-----------|------------|
| Max AP 28 m 2.5 m 2.5 m 3.44 | Value | | | Actua- tor | | • | | | Sı | ipply pressu | ire | | | Max Press | ure Limits |
| Mart | | Size | Havei | struc- | Packing | Max ∆P | | | | | | | | ΔΡ | Supply |
| A | | mm | mm | tion | | | | | | | | | | | |
| A.B. Zebar Pife C/50 S1.7 C/50 S1.7 C/50 A.1 | | | | | | | | | | | | | | | |
| A | | | | | | | (7) | 50) | | | | | | | (54) |
| DN15 to 25 | | 4.8 | 20 | | | | | | . , | | 54.7 | | | | |
| No. | | | | | | (750) | N | /A | | | | | | | |
| NPS 1/2 to 1 P | | | | | | | | | N | /A | (', | | | | , , |
| Part | (NPS 1/2 | | | 225 | ULF | | 51 | 1.7 | | | | | | | |
| Part | to 1) | | | 2Bar | | | (7 | 50) | | | | | | | (54) |
| No. | | 9.5 | 20 | | | | | | (750) | | | _ | | | |
| NA | | | | | | (750) | N | /A | | | | | | (750) | |
| DN20 to 40 (NPS 3/4 to 1-1/2) 14 20 225 | | | | | | | | | N/A | | (750) | | | | (59) |
| DN20 to 40 (NPS 3/4 to 1-1/2) 14 20 225 3Bar PTFE (750) | | | | | | | | | 51.7 | | | | | | 2.7 |
| Total (NPS 3) Total (NPS 3 | DN30 | | | | | | | | | | | | | | |
| NPS 3/4 to 1-1/2 | | 1.4 | 20 | 225 | ULF | 51.7 | | | (750) | | | | | | |
| N/A | (NPS 3/4 | /4 | 20 | 3Bar | | (750) | N/A | | | | | _ | | | 4.1 |
| DN25 to 50 (NPS 1 to 2) DN40 to 50 (NPS 1-1/2 to 2) DN40 to 50 (NPS 1-1/ | to 1-1/2) | | | | | | 14/7 | | N | /A | (750) | | | | (59) |
| DN25 to 50 t | | | | 4Bar | PIFE | 27.2 | 20.2 | | | | | | | | |
| DN25 to 50 (NPS 1 to 2) 22 | | | | 225 | ULF | | | 51.7 | | | | | | | 3.7 |
| DN25 to 50 (NPS 1 to 2 | | | | | DTFF | 42.0 | | | 54.7 | | | | | | |
| The content of the | | | | | TILL | | (750) | | | | | | | 51.7 | |
| DN40 to 50 (NPS 1-1/2 to 2) To 2 to 2) ULF 225 ULF 235 ULF 235 ULF 245 | | 22 | 20 | 225 | ULF | 43.4 (629) | | | (750) | | | - | | | |
| DN40 to 50 (NPS 1-1/2 to 2) 225 ULF 225 33.7 45.3 50.9 (738) 3.7 DN40 to 50 (NPS 1-1/2 to 2) 136 20 ULF 225 33.7 226 ULF 10.2 (148) (212) (367) (521) (657) 151.7 20.1 30.8 41.4 50.8 (228) (229) (447) (600) (737) 25.9 35.3 47.2 (376) (512) (685) (455) (592) (750) (750) (750) (750) (750) (751) (750) | (14131102 | | | 3Bar | PTFE | | N | /A | | | | | | | |
| DN40 to 50 (NPS 1-1/2 to 2) Box of the last series | | | | 225 | ULF | | | ,,, | N. | /^ | (750) | | | | (59) |
| DN40 to 50 (NPS 1-1/2 to 2) 10 ULF | | | | 4Bar | PTFE | | | | | | | | | | |
| DN40 to 50 (NPS 1-1/2 to 2) 36 ULF 28ar PTFE 15.7 (228) 15.7 (228) (292) 15.7 (228) (292) 15.7 (228) (292) 15.7 (228) 15.7 (228) 15.7 (228) 15.7 (228) 15.7 (228) 15.7 (228) 15.7 (228) 15.7 (228) 15.7 (228) 15.7 (229) 16.2 (235) 31.4 16.2 (235) 31.4 16.2 (376) 15.7 (750) 16.2 (447) 16.2 (376) 17.5 17.7 (750) 17.7 (750) 17.7 (750) 17.7 (750) 17.7 (750) 17.7 (750) 17.7 (750) 17.7 17.7 (750) 17.7 (750) 17.7 (750) 17.7 (750) 17.7 (750) 17.7 (750) 17.7 | | | | 225 | ULF | | | | | | | | | | 2.7 |
| DN40 to 50 (NPS 1-1/2 to 2) 36 20 ULF 16.2 (235) 225 3Bar PTFE 21.7 (315) N/A 225 ULF 28.3 (410) N/A 10.2 (288) (292) (447) (600) (737) 25.9 (35.3) (75) (685) 31.4 (40.8 (512) (685) (750) 49.3 (715) 51.7 (750) 4.1 (59) (750) 4.1 (59) (750) 4.1 (59) | | | | | | | | | | | | | | | |
| to 50 (NPS 1-1/2 to 2) 36 20 225 3Bar PTFE 21.7 (315) ULF 28.3 (410) 4.1 (59) N/A (10) | | | | 250. | PTFE | | | | | | | | | | (3.) |
| to 50 (NPS 1-1/2 to 2) 36 20 225 3Bar PTFE 21.7 (315) N/A 33.7 N/A (455) (592) (750) (715) 51.7 (750) 4.1 (59) (715) 51.7 (715) | | | | | ULF | | | • | | | | 1 | | | |
| to 2) ULF 28.3 (410) N/A (455) (592) (750) (750) 4.1 (59) (750) 4.1 (59) (750) 4.1 (59) (750) 4.1 (59) (750) 4.1 (59) (750) 4.1 (59) (750) 4.1 (75 | | 36 | 20 | | | | | | | | | - | | | |
| ULF 28.3 (410) 47.2 (685) (715) 48ar 27.7 33.7 N/A 51.7 51.7 | | | | ופמכ | PTFE | | | | | | | 1 | | | 4.1 |
| 225 (410) 4Bar N/A (085) (715) 51.7 51.7 | | | | | IIIF | | 28.3 (410) 33.7 | | | 7.2 | | | | | |
| 46ar pres 33./ 51./ 51./ | | | | | OLI | | | | | | | (715) | | | |
| [| | | | | | 33.7 (489) | | | N/A | 51.7 (750) | .7 | | 51.7 (750) | | |

Table 8. Maximum Pressure Drops with Bellows Bonnet Construction and Low Strength Stem (continued)

| Tuble o | · WIGA | in an in | Listare | Drops w | Air to Open | W DOTT | ice cons | craction | | Air to Close | | (COTTENT) | acu, | |
|---------------------|-----------|----------|----------------|---------------|-------------------|---------------------------------------|---------------------|-------------------|----------------------|-------------------|-------------------|-------------------|-------------------|-------------|
| | Port | Max | Actua- tor | | Open | | | Su | ipply pressu | re | | | Max Press | ure Limits |
| Valve Size | Size | Travel | con- struc- | Packing | Max ∆P | 2 Bar (29 psi) | 2.5 Bar (36 psi) | 3 Bar (44 psi) | 3.44 Bar (50 psi) | 4 Bar (58 psi) | 5 Bar (72 psi) | 6 Bar (87 psi) | ΔΡ | Supply |
| | mm | mm | tion | | bar | bar | bar | bar | bar | bar | bar | bar | bar | bar |
| | | | | | (psi) 48.0 | (psi) 33.7 | (psi) | (psi) | (psi) | (psi) | (psi) | (psi) | (psi) 47.9 | (psi) |
| | | | 750 | ULF | (696) | (489) | | | | | | | (695) | 2.2 |
| | | | 2Bar | PTFE | 51.7 (750) | 39.2 (569) | | | | | | | 51.7 (750) | (32) |
| DN40 to 50 | | | 750 | ULF | 48.0 (696) | | | | | | | | | |
| (NPS 1-1/2 to 2) | 36 | 20 | 3Bar | PTFE | 51.7 (750) | | | | | | | | | |
| | | | | ULF | 48.0 (696) | N, | /A | | | | | | N, | /A |
| | | | 750 4Bar | PTFE | 51.7 | | | N, | /A | | | | | |
| | | | | ULF | (750) | 9.0 | 15.5 | 22.0 | 27.8 | | | | 31.2 | |
| | | | 225 2Bar | | | (131) 12.3 | (225) 18.8 | (319) 25.4 | (403) 31.1 | | | | (453) 34.5 | 3.7 (54) |
| | | | | PTFE | 9.9 | (178) | (273) | (368) 15.9 | (451) 21.6 | 28.9 | | | (500) 30.2 | |
| | | | 225 | ULF | (144) | | | (231) | (313) | (419) | | | (438) | |
| | | | 3Bar | PTFE | 13.3 (193) | N, | IΔ | 19.2 (278) | 25.0 (363) | 32.3 (468) | | | 33.6 (487) | 4.1 |
| | | | 225 48ar | ULF | 17.3 (251) | 14) | ,,,, | | 10 | 28.9 (419) | | | 30.2 (438) | (59) |
| DN50 | | | 4Bar | PTFE | 20.7 (300) | | | N/A | | 32.3 (468) | | | 33.6 (487) | |
| (NPS 2) | 46 | 20 | 750 | ULF | 29.4 (426) | 20.7 (300) | | | | | l . | | 29.4 (426) | 2.2 |
| | | | 2Bar | PTFE | 32.8 (476) | 24.0 (348) | | | | | | | 32.7 (474) | (32) |
| | | | 750 | ULF | 29.4 (426) | | | | - - | | | | | |
| | | | 3Bar | PTFE | 32.8 (476) | , , , , , , , , , , , , , , , , , , , | / A | | | | | | N. | 10 |
| | | | 750 | ULF | 29.4 (426) | N, | /A | N | /A | | | | N, | /A |
| | | | 4Bar | PTFE | 32.8 (476) | | | IN, | JA. | | | | | |
| | | | 750 | ULF | 46.4 (673) | 32.1 (466) | 51.7 | | | | | | | |
| | N80 36 20 | 2Bar | PTFE | 51.1 (741) | 36.8 (534) | (750) | 51.7 | | | | | 51.7 | 3.2 | |
| DN80 | | 750 | ULF | 46.4 (673) | | | (750) | | | | | (750) | (46) | |
| (NPS 3) | ٥٠ | 20 | 3Bar | PTFE | 51.1 (741) | N/A | | | | | | | | |
| | | | 750 | ULF | 46.4 (673) | IN, | ,,, | N/A | | | | | N, | |
| | | | 4Bar | PTFE | 51.1 (741) | | | IN, | | | | | IN) | |

Table 8. Maximum Pressure Drops with Bellows Bonnet Construction and Low Strength Stem (continued)

| | | | Actua- | | Air to Open | | | | | Air to Close | | | · · | |
|-----------------|--------------------|---------------|----------------|-------------|----------------|-------------------|---------------------|-------------------|----------------------|-------------------|-------------------|-------------------|---------------|--------------|
| Valve | Port Size | Max Travel | tor | | | | | Su | pply pressu | re | | | Max Press | ure Limits |
| Size | Size | Havei | con- struc- | Packing | Max ∆P | 2 Bar (29 psi) | 2.5 Bar (36 psi) | 3 Bar (44 psi) | 3.44 Bar (50 psi) | 4 Bar (58 psi) | 5 Bar (72 psi) | 6 Bar (87 psi) | ΔΡ | Supply |
| | mm | mm | tion | | bar (psi) | bar (psi) | bar (psi) | bar (psi) | bar (psi) | bar (psi) | bar (psi) | bar (psi) | bar (psi) | bar (psi) |
| | | | 750 | ULF | 28.4 (412) | 19.7 (286) | 41.5 (602) | | | | | | | |
| | | | 2Bar | PTFE | 31.3 (454) | 22.6 (328) | 44.3 (643) | 51.7 | | | | | 51.7 | 3.2 |
| DN80 -100 | 46 | 20 | 750 | ULF | 28.4 (412) | | • | (750) | | | | | (750) | (46) |
| (NPS 3 to 4) | 46 | 20 | 3Bar | PTFE | 31.3 (454) | N/A | | | | | | | | |
| | | | 750 | ULF | 28.4 (412) | IN, | /A | N/A | | | | | N. | 10 |
| | | | 4Bar | PTFE | 31.3 (454) | | | IN, | /A | | | | IN, | /A |
| | | | 750 2Bar | ULF PTFE | | 51.7 (750) | | 51.7 | | | | | 51.7 | 3.2 |
| DN80 (NPS 3) | 70 Bal | 20 | 750 3Bar | ULF PTFE | 51.7 (750) | | | (750) | | | | | (750) | (46) |
| (= = / | | | 750 4Bar | ULF PTFE | (1 = 0) | N, | /A | N/A | | | | | N, | /A |
| | | | 750 | ULF | | 46.8 (679) | 51.7 | | | | | | | |
| DN100 | DN100 90 20 Pal 20 | | 2Bar | PTFE | 51.7 | 51.7 (750) | (750) | 51.7 (750) | | | | | 51.7 (750) | 3.2 (46) |
| | | 20 | 750 3Bar | ULF PTFE | (750) | | | | | | | | | |
| | | | 750 4Bar | ULF PTFE | | N/A | JA. | N/A | | | | | N, | /A |

Table 9. Shutoff Classification Capability for Bellows Bonnet Construction and Low Strength Stem⁽¹⁾

| | | | | Cupus | Air to Open | ows Bonnet Constru | | | Air to Close | .94.1.544 | | |
|----------------------|------|--------|------------------------|-------------|-------------|---|-----------|-------------------|----------------------|-------------------|-------------------|-------------------|
| | Port | Max | Actua- tor | | | | | 9 | Supply pressur | e | | |
| Valve Size | Size | Travel | con- struc- tion | Packing | Shutoff | 2 Bar 2.5 Bar (29 psi) (36 psi) Shutoff Shutoff | | 3 Bar (44 psi) | 3.44 Bar (50 psi) | 4 Bar (58 psi) | 5 Bar (72 psi) | 6 Bar (87 psi) |
| | mm | mm | LIOII | | | Shutoff | Shutoff | Shutoff | Shutoff | Shutoff | Shutoff | Shutoff |
| | | | 225 | ULF | | IV, | /,VI | | | | | |
| | | | 2Bar | PTFE | 1 | | | IV,\ | V,VI | | | |
| | 4.8 | 20 | 225 | ULF | IV,V,VI | | | | | | - | |
| | | | 3Bar | PTFE | 1 | N | /A | | | IV,V,VI | | |
| DN15 | | | 225 4Bar | ULF PTFE | 4 | | | N | /A | | | |
| to 25 (NPS 1/2 to | | | - | ULF | IV,V | | | | | | | |
| 1) | | | 225 2Bar | PTFE | 10,0 | IV, | /,VI | | | | | |
| | | | 225 | ULF | 1 | | | IV,\ | V,VI | | | |
| | 9.5 | 20 | 3Bar | PTFE | IV,V,VI | | | | | | - | |
| | | | 225 | ULF | ,., | N | /A | | | IV,V,VI | | |
| | | | 4Bar | PTFE | † | | | N | /A | | | |
| | | | 225 | ULF | IV | | | | | | | |
| DNIDO | | | 2Bar | PTFE | | IV,V | IV,V,VI | | | | | |
| DN20 to 40 | | | 225 | ULF | IV,V | | <u>l</u> | IV,\ | V,VI | | | |
| (NPS 3/4 to | 14 | 20 | 3Bar | PTFE | | | | | | | - | |
| 1-1/2) | | | 225 | ULF | IV,V,VI | N | /A | | | IV,V,VI | | |
| | | | 4Bar | PTFE | | | | N | /A | | | |
| | | | 225 | ULF | | IV,VI | 0.7.7.7.7 | | | | | |
| | | | 2Bar | PTFE | IV,VI | IV,V,VI | IV,V,VI | 13/3 | ./.\/! | | | |
| DN25 | 22 | 20 | 225 | ULF | | | • | 10, | IV,V,VI | | | |
| to 50 (NPS 1 to 2 | 22 | 20 | ЗВаг | PTFE | | N. | /A | | | IV,V,VI | - | |
| (14131102 | | | 225 | ULF | IV,V,VI | IN. | /^ | N | N/A | | | |
| | | | 4Ваг | PTFE | | | | IN | <i> </i> ^ | | | |
| | | | 225 | ULF |] | IV,VI | IV,VI | IV,V,VI | | | | |
| | | | 2Bar | PTFE | | , | IV,V,VI | | IV,V,VI | | | |
| | | | 225 | ULF | IV,VI | | | IV,VI | .,,,,, | | - | |
| | | | 3Bar | PTFE | _ | N | /A | IV,V,VI | | IV,V,VI | | |
| DN40 | | | 225 | ULF | 0.7.7.7.0 | | | N | /A | | | |
| to 50 | 36 | 20 | 4Bar | PTFE | IV,V,VI | | ı | | | | | |
| (NPS 1-1/2 to 2) | | | 750 2Bar | ULF PTFE | - | IV,V,VI | | | | | | |
| , | | | - | ULF | 4 | | | - | | | | |
| | | | 750 3Bar | PTFE | IV,V,VI | | | | | | | |
| | | | 750 | ULF | | N | /A | | | | | |
| | | | 4Bar | PTFE | - | | | N | /A | | | |
| | | | 225 | ULF | | | | IV,VI | | | | |
| | | | 2Bar | PTFE | | IV | ,VI | IV,V,VI | IV,V,VI | | | |
| | | | 225 | ULF | | | | IV,VI | IV,VI | | | |
| | | | 3Bar | PTFE | n, | | N/A | | IV,V,VI | n./ | - | |
| | | | 225 | ULF | - IV,VI | N | /A | | 1 | - IV,V,VI | | |
| DN50 | 46 | 20 | 4Bar | PTFE | 1 | | n() (| | /A | | | |
| (NPS 2) | 40 | ∠0 | 750 | ULF | | IV,VI | | | | | | |
| | | | 2Bar | PTFE | | IV,V,VI | | | | | | |
| | | | 750 | ULF | IV,V,VI | | |] | | | | |
| | | | 3Bar | PTFE | 1,4,4,41 | N | /A | | |] | | |
| | | | 750 | ULF | 1 | | , | N/Δ | | | | |
| 1 | | | 4Bar | PTFE | | | | N/A | | | | |

Table 9. Shutoff Classification Capability for Bellows Bonnet Construction and Low Strength Stem⁽¹⁾ (continued)

| | | | Actua- | | Air to Open | | | | | | | | | | |
|-------------------------------|--------------|----------------|------------------------|-----------------|--------------------|-------------------|---------------------|-------------------|----------------------|-------------------|-------------------|-------------------|--|--|--|
| Valve | Port | Max | tor | | | | | | Supply pressure | 2 | | | | | |
| Size | Size | Travel | con- struc- tion | Packing | Shutoff | 2 Bar (29 psi) | 2.5 Bar (36 psi) | 3 Bar (44 psi) | 3.44 Bar (50 psi) | 4 Bar (58 psi) | 5 Bar (72 psi) | 6 Bar (87 psi) | | | |
| | mm | mm | LIOII | | | Shutoff | Shutoff | Shutoff | Shutoff | Shutoff | Shutoff | Shutoff | | | |
| | | | 750 | ULF | | IV,\ | / VI | | | | | | | | |
| | | | 2Bar | PTFE | | , | ., | IV,V,VI | | | | | | | |
| DN80 | 36 | 20 | 750 | ULF | IV,V,VI | | | ,.,. | | | | | | | |
| (NPS 3) | | | 3Bar | PTFE | ,., | N | /A | | | _ | | | | | |
| | | | 750 | ULF | | , | | N | /A | | | | | | |
| | | | 4Bar | PTFE | | | ı | | 1 | | | | | | |
| | | | 750 | ULF | | IV,VI | IV,V,VI | | | | | | | | |
| DN80 | | | 2Bar | PTFE | | | | IV,V,VI | | | | | | | |
| -100 | 46 | 20 | 750 3Bar | ULF PTFE | IV,V,VI | N/A | | | | | | | | | |
| (NPS 3 to 4) | | | | ULF | | | | | | | | | | | |
| | | | 750 4Bar | PTFE | | | | N/A | | | | | | | |
| | | | 750 | ULF | | | | | | | | | | | |
| | | | 2Bar | PTFE | | ŗ | V | | | | | | | | |
| DN80 | 70 | | 750 | ULF | | | | IV | | | | | | | |
| (NPS 3) | Bal | 20 | 3Bar | PTFE | IV | | | | | | | | | | |
| | | | 750 | ULF | | N | /A | | 1. | | | | | | |
| | | | 4Bar | PTFE | | | | N | /A | | | | | | |
| | | | 750 | ULF | | | , | | | | | | | | |
| | | | 2Bar | PTFE | | IV | | IV | | | | | | | |
| DN100 | 90 | 20 | 750 | ULF | IV | | | IV | | | | | | | |
| (NPS 4) | Bal | 20 | 3Bar | PTFE | 17 | N/A | | | | | | | | | |
| | | | 750 | ULF | | IN/A | | N/A | | | | | | | |
| | | | 4Bar | PTFE | | | | I V | <i> </i> | | | | | | |
| CLVI shut | off is achie | eved through t | the use of a | soft seat in po | rts greater than o | or equal to 22mr | n. | | | | | | | | |

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